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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,275	09/14/2000	Deanna Lynn Quigg Brown	AUS9-2000-0476-US1	8839

7590

06/14/2004

Kelly K Kordzik
100 Congress Avenue
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EXAMINER

LIN, WEN TAI

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PR4

Office Action Summary	Application 09/661,275	Applicant(s) QUIGG BROWN ET AL.	
	Examiner Wen-Tai Lin	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 76-99 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 76-77, 80-85, 88-93 and 96-99 is/are rejected.
- 7) ☒ Claim(s) 78, 79, 86, 87, 94 and 95 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 76-99 are presented for examination. Claims 1-75 have been canceled and claims 76-99 are newly added.
2. Claims 80-81, 88-89 and 96-97 are objected to because the term "said alternative gateway" lacks antecedent basis.
3. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

Claim Rejections - 35 USC § 103

4. Claims 76-77, 80-85, 88-93 and 96-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braden [RFC 1122].
5. As to claims 76 and 82, Braden teaches the invention substantially as claimed including: a method for detecting a dead gateway comprising the steps of Braden: Sec. 3.3.1.4]:

- sending a first Transmission Control Protocol (TCP) packet of data from an application of a sender host to a receiver host through a first gateway;
- failing to receive an acknowledgment of received data from said receiver host;
- sending an ARP request to said first gateway upon deletion of said ARP entry;

wherein if a response to said ARP request is not received from said receiver host, then said first gateway is inoperative.

[Note that Braden teaches that TCP or any connection-oriented transport protocol should be able to give negative advice about the availability of the gateway, e.g., triggered by excessive retransmission and failure to ARP or to re-validate ARP mapping are signs of dead gateway (See Braden: Sec 3.3.1.4 entitled "Dead Gateway Detection")].

Braden does not specifically teach deleting an Address Resolution Protocol (ARP) entry associated with said first gateway in said sender host as an explicit step for checking whether the first gateway is dead or not.

However, Braden teaches that out-of-date ARP cache entries can be flushed by using (i) timeout mechanism and/or (ii) unicast poll (i.e., delete the relevant entry if no ARP reply for N successive polls) [Braden: Sec 2.3.2.1]. Thus by combining the Braden's passages at Sec 3.3.1.4 and Sec 2.3.2.1, it is obvious that when attempting to use ARP as a means for checking the availability of a gateway, the out-of-date ARP

cache entries should be flushed first because one needs to be sure the ARP information contained in the local cache is correct before an ARP request is sent out as a test for the availability of the underlying gateway.

6. As to claim 77, Braden teaches that the method further comprising the step of: selecting an alternative path to send a packet of data from said sender host to said receiver host through a second gateway in a routing table in said sender host if said response to said ARP request is not received from said receiver host.

[Note that this is an obvious option following the decision that the first gateway is inoperative (see also the Discussion in Sec 3.3.1.4)].

7. As to claims 80-81 and 83, Braden further teaches sending a non-TCP packet of data to said receiver host through said second gateway using said alternative path [Note that this is a design choice because a user may choose to send either TCP or non-TCP packets to an Internet destination through any gateway that is available to him/her].

8. As to claims 84-85, 88-93 and 96-99, since the features of these claims can also be found in claims 76-77 and 80-83 they are rejected for the same reasons set forth in the rejection of claims 76-77 and 80-83 above.

9. Claims 78-79, 86-87 and 94-95 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Applicant's arguments filed on 4/27/2004 for claims 76-99 have been fully considered but are moot in view of the new ground(s) of rejection (note that claims 76-99 did not exist in the previous office action).

11. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (703)305-4875. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(703)746-5516 for status inquires draft communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Wen-Tai Lin

June 8, 2004

Wen-Tai Lin
6/8/04